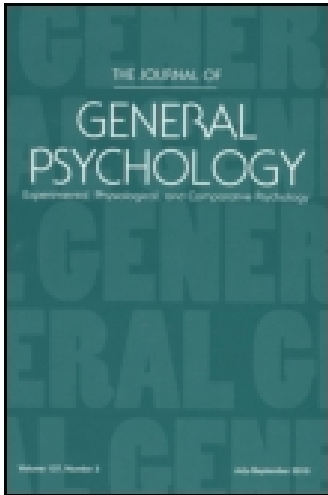




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A Paradoxical Color Effect

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tation are roughly identical, and the subjects are of approximately the same social status.

2. The exposure position of the rectangle, i.e., whether the longer dimension is in the vertical or the horizontal, also has considerable effect on the preference value.

3. Changes in the stimuli, i.e., changes in the size and color of the rectangles, greatly affect the preference value.

4. Similarly, the preference status of the golden section is a function of the size and color of the rectangle, the position in which it is presented, and perhaps of other untested variables. In conditions somewhat approximating Fechner's experimental situation it has a high relative rating.

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A PARADOXICAL COLOR EFFECT

B. F. SKINNER*

When the accompanying figure is held about two feet from the eye and looked at under low white-light illumination, the discs appear as if colored. A suitable illumination can be conveniently obtained by viewing the figure in room light through a pin-hole. The colors are usually of low saturation but are quite definite. Most of the persons I have tested have reported a rose or a purplish red, a yellow, and a green or blue-green. Others have reported only a blue and yellow. Each disc takes on a single color and retains it as long as the fixation is not changed. Adjacent discs may be and usually are, of different colors.

An explanation suggests itself in terms of a functional-element theory of color vision. At the necessary low illumination the number of functional cones within the retinal image of a single disc cannot be very large. If the number is sufficiently low, a proportionate distribution of elementary types is improbable or even impossible. But a disproportionate activity is, by hypothesis, the characteristic effect of stimulation by colored light.

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It should not be difficult to test this explanation. A quantitative investigation of the optimal illumination and the optimal visual angle subtended by a disc is being planned. The distribution of the several hues and possible differences in saturation are also of obvious significance in color vision theory.

So far as I am aware, no comparable effect has been reported.

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